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ABSTRACT

In a method for the production of propylene, a charge stream containing C<sub>4</sub> to C<sub>6</sub> olefins is evaporated, superheated, mixed with hot water vapor, the olefins vapor mixture converted on a zeolite catalyst, the reaction mixture formed thereby cooled, and then partially condensed. In order to increase the yield of propylene, the gaseous phase containing ethylene, propylene, C<sub>4</sub> to C<sub>8</sub> olefins, and additional hydrocarbons that is accumulated during the partial condensation is compressed, the gaseous and liquid phase containing propylene, ethylene, and other light hydrocarbons that exit from the compression step is separated into a gaseous phase containing propylene, ethylene, and other light hydrocarbons and a liquid phase containing C<sub>4+</sub> olefins, and the liquid phase is separated into a fraction containing C<sub>4</sub> to C<sub>6</sub> olefins and a fraction containing C<sub>7+</sub> olefins.